

**STATEMENT OF THE LEGAL AND FACTUAL BASIS FOR THE TERMS
OF THE PROPOSED PERMIT** [1203(B)(1)(a)(i)]

TITLE V FEDERAL PERMIT TO OPERATE
Facility named – Searles Valley Minerals (SVM)

Federal Operating Permit # 90002

April 20, 2012

Christian Anderson

Air Quality Engineer

A. FACILITY IDENTIFYING INFORMATION:

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<u>Owner/Company Name:</u>	Searles Valley Minerals (SVM)
<u>Owner Mailing Address:</u>	Searles Valley Minerals P.O. Box 367 Trona, CA 93592-0367
<u>Facility Names:</u>	TRONA, ARGUS AND WEST END (FACILITIES)
<u>Facility Location:</u>	13200 Main Street Trona, CA 93562
<u>Mailing Address:</u>	Searles Valley Minerals P.O. Box 367 Trona, CA 93592-0367
<u>MDAQMD Federal Operating Permit Number:</u>	90002
<u>MDAQMD Company Number:</u>	009
<u>MDAQMD Facility Number:</u>	0002
<u>Responsible Official:</u>	Mr. Stephen W. Cole
<u>Title:</u>	President
<u>Phone Number:</u>	
<u>Facility "Site" Contacts:</u>	Mr. Ross H. May
<u>Title:</u>	Director – Environmental
<u>Phone Number:</u>	760-372-2197
<u>Facility "Off Site" Contacts:</u>	none
<u>Phone Number:</u>	
<u>Nature of Business:</u>	Sodium and Boron Minerals Processing Facility
<u>SIC Code:</u>	1474
<u>Facility Location:</u>	UTM – 466E/3957N

**STATEMENT OF THE LEGAL AND FACTUAL BASIS FOR THE TERMS
OF THE PROPOSED PERMIT [1203(B)(1)(a)(i)]**

Statutory and Regulatory Authorities: Pursuant MDAQMD Regulation 12, Program - Federal Operating Permits, a.k.a. Title V (Adopted 7/25/94, Amended 02/22/95 with approval at 66 FR 63503, 12/17/01. Notice of Deficiency made at 67 FR 35990, 05/22/02 with a partial withdrawal made at 67 FR 63551, 10/15/02. Amended 09/26/05, with Rule 1200 subsequently amended 02/28/11, and new Rule 1211 adopted 02/28/11. Awaiting CARB and USEPA action on 09/26/05 and subsequent actions, in accordance with Rule 221 – Federal Operating Permit Requirement, 40 CFR 52.220(C)(216)(i)(A)(2) – 02/05/96 61 FR 4217 of the Clean Air Act of 1990, the Mojave Desert Air Quality Management District issues this permit.

Federal Operating Permit (FOP number: 90002) for Searles Valley Minerals (SVM), TRONA, ARGUS, and WEST END – Plants/Facilities. SVM is a Solution Mining and Chemicals Processing Facility located at 13200 Main Street, Trona, California 93562.

SVM is federally major for SO_x and NO_x (ozone precursor).

The SVM, Title V Federal Operating Permit # 90002, was developed by consulting District Permit conditions for existing power plant equipment, and SIP Rule requirements for Federal Rules, applicable to the facility. In addition, the MDAQMD Title V Program Rules, having received Partial Program Approval from the USEPA, were also consulted.

I. BACKGROUND:

The Federal Clean Air Act Amendments of 1990 established a nation-wide permit to operate program commonly known as "Title V". MDAQMD adopted Regulation XII [Rules 1200 - 1210] and Rule 221 - *Federal Operating Permit Requirement*.

Federal Operating Permit (FOP number: 90002) for SVM located at 13200 Main Street, Trona, CA 93562. This *Statement of Legal and Factual Basis*, pursuant to Rule 1203(B)(1)(a)(i), is intended to assess the adequacy of this Title V Application and to explain the District's basis in composing the Title V - Federal Operating Permit for SVM. SVM - Title V Federal Operating Permit 5 year renewal application was received on January 24, 2012 (revision submitted, in response to District request, on February 21, 2012).

The District's approach to the Title V program is to issue a single Federal Operating Permit for the entire facility that satisfies the federal requirement for a permit under Rule 221 [*NOTE: MDAQMD maintains separate Title V and District permits programs*]. All Federal, State and most District only requirements, associated with the emission of air contaminants, are included in the Federal Operating Permit. All documents which are not readily available to the public, and are necessary to support the permit, are to be included. The District has taken the approach that the following documents are readily available to the public, and therefore, are not included: Code

of Federal Regulations, California Code of Regulations and Health and Safety Code, District Rules and Regulations [both documents are current and appear in the California State Implementation Plan], the continuous emission monitoring system quality assurance and monitoring plans [available at SVM and the District's office], all test methods, copies of District Authorities to Construct and Permits to Operate [available at the District's office].

The USEPA, Region 9 was e-mailed a draft of the proposed permit on April 20, 2012 [a hard copy to be mailed upon request]. The USEPA statutory 45-day review period will expire on or about June 5, 2012. The 30-day Public Notice will be published on or about April 23, 2012 and end on May 23, 2012.

Rule 1203 (D)(1) outlines Title V Permit content requirements as follows:

III. TITLE V PERMIT CONTENTS [Rule 1203 (D)(1)]:

All Federal Operating Permits shall contain, at a minimum, the following terms, and conditions:

A. Identification of Applicable Requirements:

1. Standard conditions for generally applicable requirements do not list those processes to which they apply as allowed by EPA's White Paper One, page 9 and 10, section 4, last sentence of paragraph 2.
2. Minor New Source Review (NSR). All existing permit conditions, which are based on previous authority to construct conditions, are considered applicable federal requirements because those pre-construction review actions resulted from SIP Rule 203 - *Permit to Operate* and SIP Rule 204 - *Permit Conditions*.
3. Federal Applicable/Enforceable Requirements:
District Rule 1201 (P): "Federally Enforceable" - Any requirement, condition or other term which is fully enforceable by USEPA pursuant to the provisions of 42 U.S.C. §7413 (Federal Clean Air Act §113) or the public pursuant to the provisions of 42 U.S.C. §7604 (Federal Clean Air Act §304).
District Rule 1201 (G): "Applicable Requirement" - Any of the following requirements, including requirements that have been promulgated or approved by USEPA through rulemaking at the time of permit issuance but have future effective dates, as they apply to a Facility or Permit Unit: *Appropriate conditions are included in the Title V Permit to ensure compliance with the following requirements (a through i).*
 - (a) Any standard or other requirement contained in the applicable implementation plan for the District, and any amendments thereto, approved or promulgated pursuant to the provisions of Title I of the Federal Clean Air Act (42 U.S.C. §§7401-7515).
 - (b) Any term or condition of any preconstruction permit issued pursuant to regulations approved or promulgated under Title I of the Federal Clean Air Act (42 U.S.C. §§7401-7515).

- (c) Any standard or other requirement under 42 U.S.C. §§7411, Standards of Performance for New Stationary Sources (Federal Clean Air Act §111); 42 U.S.C. §7412, Hazardous Air Pollutants (Federal Clean Air Act §112); and any regulations promulgated thereunder.
- (d) Any standard or other requirement under Title IV of the Federal Clean Air Act (42 U.S.C. §§7651-7651o) or the regulations promulgated thereunder.
- (e) Any requirements regarding monitoring, analysis, and compliance established pursuant to 42 U.S.C. §7414(a)(3), Record keeping, Inspections, Monitoring and Entry (Federal Clean Air Act §114); 42 U.S.C. §7661c(b), Permit Requirements and Conditions (Federal Clean Air Act §504); and the regulations promulgated thereunder.
- (f) Any standard or other requirement governing Solid Waste Incineration Units under 42 U.S.C. §7429, Solid Waste Combustion (Federal Clean Air Act §129) and the regulations promulgated thereunder.
- (g) Any standard or other requirement for consumer or commercial products under 42 U.S.C. §7511b(e) (Federal Clean Air Act §183) and the regulations promulgated thereunder.
- (h) Any standard or other requirement of the regulations promulgated under Title VI of the Federal Clean Air Act (42 U.S.C. §§7671-7671q) unless the USEPA has determined that such requirement need not be contained in a Federal Operating Permit.
- (i) Any national ambient air quality standard or increment or visibility requirement under part C of Title I of the Federal Clean Air Act (42 U.S.C. §§7401-7515), but only as it would apply to temporary sources pursuant to the provisions of 42 U.S.C. 7661c(e) (Federal Clean Air Act §504(e)).

4. See the following discussions below:

40 CFR Part 60, Subpart GG - Standards Of Performance For Stationary Gas Turbines

The provisions of this subpart are applicable to all stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired.

MDAQMD Permit Unit B000339, West End Turbine (install 1969) operates with a maximum heat rate input of 2950 million Btu/hr and is therefore subject to this subpart. SVM does not operate any other stationary gas turbine.

Appropriate conditions are included in the Title V Permit to ensure compliance with these requirements.

40 CFR Part 60, Subpart D - Standards of Performance for Fossil-Fuel-Fired Steam Generators

The provisions of this subpart apply to each fossil-fuel-fired steam generating unit of more than 73 megawatts (MW) heat input rate (250 million British thermal units per hour (MMBtu/hr)). MDAQMD permit units B000554 and B000555 (Boilers 25 and 26) are fossil fuel burning (pulverized coal), each have a maximum firing rate of 1025

MMBtu/hr, and are steam generating units. Units commenced construction or modification after August 17, 1971 and prior to subpart Db applicability date of June 19, 1984. Therefore, the provisions of this subpart apply.

Appropriate conditions are included in the Title V Permit to ensure compliance with these requirements.

40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)

This regulation is applicable to existing, new and reconstructed stationary RICE at major and area sources of hazardous air pollutants (HAP) emissions. SVM operates several stationary emergency use only RICE. All are deemed existing as they were manufactured prior to June 2006. This subpart applies to each of these RICE.

Appropriate conditions are included in the Title V Permit to ensure compliance with these requirements.

40 CFR Part 61, Subpart M - National Emission Standard for Asbestos

This facility on an as needed basis is subject to Section 61.145 through 61.147 - standards for the demolition and renovation of asbestos. Historically, the facility has been in compliance with the requirements of these standards. **Appropriate conditions are included in the Title V Permit to ensure compliance with these requirements.**

40 CFR Part 82 - Protection of Stratospheric Ozone

This facility is in compliance with the requirements of this part. Any servicing of air conditioners is performed by a qualified contracting company. **Appropriate conditions are included in the Title V Permit to ensure compliance with these requirements.**

40 CFR, Parts 60.7, 60.8 and 60.13; Subpart A - New Source Performance Standards, General Provisions

Some equipment subject to NSPS, Part 60, Subpart OOO. The following equipment required to meet Subpart OOO: Note: only the below listed Transfer Conveyor Baghouses required to meet Subpart OOO:

BICARBONATE FLUIDIZED BED DRYER SYSTEM NO. 1 (# B003665) TRANSFER POINT BAGHOUSES – MDAQMD PERMIT #s C003667, C003668, C003669, C003670; SHALL MEET THE FOLLOWING NSPS SUBPART OOO REQUIREMENTS:

BICARBONATE FLUIDIZED BED DRYER SYSTEM NO. 2 (#B004540) TRANSFER POINT BAGHOUSES – MDAQMD PERMIT #s C004542, C004543, C004544; SHALL MEET THE FOLLOWING NSPS SUBPART OOO REQUIREMENTS:

MONOHYDRATE FLUIDIZED BED DRYER SYSTEM NO. 1 (# B003672) TRANSFER POINT BAGHOUSES – MDAQMD PERMIT #s C003675, C003676, C003677; SHALL MEET THE FOLLOWING NSPS SUBPART OOO

REQUIREMENTS:

- B. Emissions limitations and/or standards, including operational limitations, which assure compliance with all Applicable Requirements and a reference to the origin and authority of each term or condition contained in the Federal Operating Permit: **Processes and Control Equipment Requiring Emission and Operational Limitations are stated in the Title V Permit conditions.**
- C. Monitoring requirements including but not limited to: [40 CFR 70.6(a)(1)] [see following] **Processes and Control Equipment Requiring Monitoring and Recordkeeping are stated in permit conditions. Records for 5 years stated in Title V Permit conditions.**
- (i) All emissions monitoring and analysis methods required by an Applicable Requirement.
 - (ii) Periodic monitoring, testing or record keeping (including test methods sufficient to yield reliable data) to determine compliance with an Applicable Requirement that does not directly require such monitoring.
 - (iii) Necessary requirements concerning use and maintenance of equipment including the installation and maintenance of monitoring equipment.

Other - Facility Support Equipment

Underground gasoline tanks are given a PTO pursuant to District Rule 461. No NSPS, NESHAPS or MACT apply to underground gasoline tanks equipment at this facility.

Appropriate conditions for underground gasoline tanks are included in the Title V Permit for this facility

- D. Record keeping requirements, where applicable, including but not limited to: [see following] **Processes and Control Equipment Requiring Monitoring and Recordkeeping are stated in Title V Permit conditions. Records for 5 years stated in Title V Permit conditions.**
- (i) Records of required monitoring information including dates and times of sampling, operating conditions at the time of sampling, date of analysis, analytical techniques and methods, the person or company performing the analysis, and the results of the analysis.
 - (ii) The retention of all records for a period of at least five (5) years from the date of monitoring.
- E. Reporting requirements, where applicable, including but not limited to: [see following] **COMPLETED, requirements (i through ii) are in proposed Title V Permit.**
- (i) Submittal of any required monitoring reports at least every six (6) months.
 - (ii) Prompt reporting of all deviations from permit requirements including those attributable to breakdown conditions. Prompt reporting shall be determined in compliance with District Rule 430.

- F. Various Standardized Provisions and/or Conditions: [see following] **COMPLETED,**
requirements (i through xii) are in proposed Title V Permit.
- (i) A severability clause.
 - (ii) A provision, which states that the permit holder shall comply with all conditions of the Federal Operating Permit. Any noncompliance constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; the termination, revocation and reissuance, or modification of the Federal Operating Permit; and/or grounds for denial of a renewal application.
 - (iii) A provision which states that the need to halt or reduce activity to maintain compliance with the provisions of the Federal Operating Permit, or for any other reason, is not a defense in an enforcement action.
 - (iv) A provisions, which states that the Federal Operating Permit may be modified, revoked, reopened, reissued or terminated for cause.
 - (v) A provision which states that the filing of an application for modification; a request for revocation and re-issuance, or termination; or notifications of planned changes, or anticipated noncompliance does not stay any condition of the Federal Operating Permit.
 - (vi) A provision, which states that the permit does not convey any property rights of any sort, or any exclusive privilege.
 - (vii) A provision which states that the Permit holder shall furnish to the District, within a reasonable time as specified by the District, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, terminating or determining compliance with the Federal Operating Permit.
 - (viii) A provision which states that the Permit holder shall, upon request, furnish to the District copies of records required to be kept pursuant to conditions of the Federal Operating Permit.
 - (ix) A provision requiring the payment of annual permit renewal fees and other applicable fees as prescribed in District Rule 312.
 - (x) A provision stating that no permit revision shall be required under any approved economic incentives, marketable permits, emissions trading or other similar programs provided for in the permit.
 - (xi) Terms and conditions, if applicable, for reasonably anticipated operating scenarios identified by the Facility in its application which require the Facility, contemporaneously with making the change from one operating scenario to another, to record in a log at the Facility a record of the scenario under which it is operating; and ensure that each alternative operating scenario meets all Applicable Requirements.
 - (xii) Terms and conditions, if requested by the applicant, for the trading of emissions increases and decreases within the Facility to the extent any Applicable Requirements allow for such trading without case-by-case approval. Such terms conditions shall include all terms and conditions to determine compliance with all Applicable Requirements; and meet all Applicable Requirements.

G. Compliance Conditions: [see following] **COMPLETED, requirements (i through x) are in proposed Title V Permit.**

- (i) Inspection and entry requirements which require that the Permit Holder allow an authorized representative of the District to enter upon the Permit holder's premises, at reasonable times.
- (ii) Provisions which allow an authorized representative of the District to have access to and copy any records that must be kept under conditions of the Federal Operating Permit.
- (iii) Provisions, which allow an authorized representative of the District to inspect any Permit Unit, equipment, practice, or operation regulated or required under the Federal Operating Permit.
- (iv) Provisions which allow an authorized representative of the District to sample or monitor substances or parameters for the purpose of assuring compliance with the Federal Operating Permits or with any Applicable Requirement.
- (v) A Compliance Plan.
- (vi) A restatement, if applicable, of the requirement that the Permit holder submit progress reports at least semiannually pursuant to a schedule of compliance. Such progress reports shall comply with the provisions of District Rule 1201(I)(3)(iii).
- (vii) Certification requirements including the frequency of submission, not less than annually, for Compliance Certifications.
- (viii) Requirements that method for monitoring compliance be included in the Compliance Certifications.
- (ix) Requirements that all Compliance Certifications be contemporaneously submitted to USEPA.
- (x) Any additional certification requirements as specified in 42 U.S.C §7414(a)(3), Recordkeeping Inspections Monitoring and Entry (Federal Clean Air Act §114(a)(3)) and 42 U.S.C. §7661c(b), Permit Requirements and Conditions (Federal Clean Air Act §503(b)) or in regulations promulgated thereunder.

H. Fugitive Emissions: **COMPLETED, control equipment and requirements are addressed in proposed Title V Permit.**

- (i) Fugitive emissions shall be included in the permit and permit conditions in the same manner as stack emissions.

I. Permit Streamlining:

Stationary Emergency Use Diesel Engines;
District has established, based on Rule 204 and Statewide ATCM (17 CCR 93115) maintenance and testing hour restrictions for stationary emergency use diesel engines that are more stringent than those found in the RICE NESHAP. The allowable hour limitations of the RICE NESHAP have been streamlined out by existing permit condition.

III. CONCLUSIONS AND RECOMMENDATION:

In conclusion, the proposed **SVM - Title V Permit** has been found to satisfy all of the requirements of District Rule 221, Rule 312, Regulation XII Rules, and the District's Title V Permit Program requirements.

The USEPA, Region 9 was e-mailed a draft of the proposed permit on April 20, 2012 [a hard copy to be mailed upon request]. The USEPA statutory 45-day review period will expire on or about June 5, 2012. The 30-day Public Notice will be published on or about April 23, 2012 and end on May 23, 2012.

Therefore, it is recommended that this Title V - Federal Operating Permit be re-issued to satisfy these requirements effective March 11, 2012 for a new 5 year permit term.

APPENDIX “A”

DISTRICT / SIP RULE COMPLIANCE DEMONSTRATIONS:

- A. Rule 406: Owner/Operator shall not discharge into the atmosphere from this facility, from any single source of emissions whatsoever, Sulfur compounds, which would exist as a liquid or gas at standard conditions, calculated as sulfur dioxide (SO₂) greater than or equal to 500 ppm by volume.

[40 CFR 70.6 (a)(1) - Periodic Monitoring Requirements] (For Periodic Monitoring Requirements, see applicable Part II and Part III conditions)

[Rule 406 - Specific Contaminants; Version in SIP = 07/25/77, 40 CFR 52.220(c)(42)(xiii)(A) - 12/21/78 43 FR 52489, Subpart (a) only; Current Rule Version = 02/20/79]

Rule 406 specifies standard conditions, but not dry. Standard conditions for Rule 406 will be calculated as wet.

Calculate the SO₂ concentration in the diesel fueled IC engine exhaust gas using the following assumptions/calculations:

1. Maximum sulfur content of the diesel fuel is by permit condition: 0.05 % by weight.
2. Specific gravity of diesel fuel is 0.84: weight of one gallon of diesel fuel is: 8.33 lb/gal x 0.84 = 7 lb/gal.
3. Heating value of diesel fuel from U.S. EPA AP-42, Section 3.3: 19,300 Btu/lb.
4. Gallons of fuel required for 10⁶ Btu: 1 lb/19,300 Btu = x lb/ 10⁶ Btu: x = 51.8 lb: (51.8 lb)(1 gal/7 lb) = 7.4 gallons per 10⁶ Btu.
5. Pounds of sulfur per 10⁶ Btu (7.4 gallons): (7.4 gal)(7 lb/gal)(0.0005) = 0.0259 pounds.
6. Mols of sulfur per 10⁶ Btu: 0.0259 lb/ 32 lb/mol = 8.09 x 10⁻⁴ mols.
7. Volume of SO₂ produced; assuming that one mol of sulfur produces one mol of SO₂; 8.09 x 10⁻⁴ mols of SO₂ are produced per 10⁶ Btu of diesel burned: (385 ft³ / mol)(8.09 x 10⁻⁴ mols) = 0.312 ft³: (385 ft³/mol is at 68 degrees Fahrenheit).
8. From 40 CFR 60, Appendix A, Method 19 the F_w factor for diesel is 10,320 wscf / 10⁶ Btu (68 degrees Fahrenheit, 0 % excess O₂). Rule 406 specifies the SO₂ concentration at standard conditions, wet, not dry.

For purposes of this calculation, excess air from the combustion process will not be considered in calculating the SO₂ concentration & is the most conservative assumption:

Concentration of SO₂ at zero percent oxygen:

$$0.312 \text{ ft}^3 / (0.010320 \times 10^6 \text{ wscf}) = 30.2 \text{ ppmv}$$

Conclusion: Diesel fueled IC Engine exhaust SO₂ concentration of 30.2 ppmv complies with Rule 406 SO₂ limit of 500 ppmv.

It is assumed that the SO₂ concentration in natural gas fueled IC engine exhaust gas will be conservatively less than that demonstrated above for diesel combustion:

Calculate the CO concentration in boiler exhaust gas using the following assumptions/calculations:

1. Based on U.S. EPA AP-42; Section 1.4, Table 1.4-2, lists the CO emission factor for natural gas combustion in boilers to be 35 lb CO per 10^6 ft³ of natural gas burned. Assume 1000 Btu / ft³ of natural gas.
2. From 40 CFR 60 Appendix A, Method 19, the F_d factor for natural gas is 8710 dscf / 10^6 Btu (68 degrees Fahrenheit). Rule 407 specifies the CO concentration on a dry basis.
3. For the purposes of this calculation, excess air will not be considered in calculating the CO concentration (most conservative):

Cubic feet of CO produced per 10^6 ft³ of natural gas burned:
(35 lb) (1 lb mol / 28 lb) (385 ft³ / mol) = 481 ft³ CO (385 ft³ / mol at 68 degrees Fahrenheit)

Dry cubic feet of combustion gas formed from 10^6 ft³ of natural gas burned:
(10^6 ft³ gas) (1000 Btu / ft³) (8710 dscf / 10^6 Btu) = 8,710,000 dscf

CO concentration = $481 \text{ ft}^3 / 8.71 \times 10^6 \text{ ft}^3 = 55.2 \text{ ppm}$ (most conservative)

Conclusion: Boiler exhaust CO concentration of 55.2 ppmv complies with Rule 407 CO limit of 2000 ppmv.

- B.** Rule 409: Owner/Operator shall not discharge into the atmosphere from this facility from the burning of fuel, combustion contaminants exceeding 0.23 gram per cubic meter (0.1 grain per cubic foot) of gas calculated to 12 percent of carbon dioxide (CO₂) at standard conditions averaged over a minimum of 25 consecutive minutes.
[Rule 409 - *Combustion Contaminants*; Version in SIP = CARB Ex. Order G-73, 40 CFR 52.220(c)(39)(ii)(C) - 09/08/78 43 FR 40011; Current Rule Version = 07/25/77]

Calculate the Total Particulate Concentration in the diesel fueled IC engine exhaust gas using the following assumptions/calculations:

1. Based on U.S. EPA AP-42, Section 3.4, Table 3.4-5, the emission factor for total particulate is 0.0697 lb/ 10^6 Btu. (= 487.9 grains/ 10^6 Btu)
2. From 40 CFR 60, Appendix A, Method 19 the F_w factor for diesel is 10,320 wscf/ 10^6 Btu (68 degrees Fahrenheit, 0 % excess O₂). Rule 409 specifies the Particulate concentration at standard conditions, wet, not dry.

For purposes of this calculation, excess air from the combustion process will not be considered in calculating the Particulate concentration & is the most conservative assumption:

Concentration of Particulate at zero percent oxygen:

$$(487.9 \text{ grains}/10^6 \text{ Btu}) / (10,320 \text{ wscf}/10^6 \text{ Btu}) = 0.047 \text{ grain}/\text{ft}^3$$

Conclusion: Diesel fueled IC Engine exhaust Total Particulate concentration of 0.047 grain per cubic foot complies with Rule 409 limit of 0.1 grain per cubic foot.

It is assumed that the Total Particulate concentration in natural gas fueled IC engine exhaust gas will be conservatively less than that demonstrated above for diesel combustion:

Appendix B
Compliance Assurance Monitoring (CAM) Analysis

40 CFR Part 64; As shown in the section below, none of the permitted air pollution control devices operated at SVM requires CAM. The control devices are either:

- ◆ Exempt from the regulation; or
- ◆ Cam not applicable as pre-control emissions under the major source emission threshold.

Emission Unit	Pollutant	Uncontrolled Potential Emissions (TPY)	Exempt from CAM by 40 CFR 64.2(b)(1)	CAM Plan Required
Argus Facility				
Bleacher Feed Bin #1 Baghouse	PM10	<100	--	No
Bleacher Feed Bin #2 Baghouse	PM10	<100	--	No
Bleacher Feed Bin #3 Baghouse	PM10	<100	--	No
Bleacher ESP	PM10	<100	--	No
Mono Crystallizer #1 Scrubber	PM10	<100	--	No
Mono Crystallizer #2 Scrubber	PM10	<100	--	No
Mono Crystallizer #3 Scrubber	PM10	<100	--	No
Mono Dryer #1 Scrubber	PM10	<100	--	No
Mono Elevator #1 Baghouse	PM10	<100	--	No
Mono Dryer #2 Scrubber	PM10	<100	--	No
Mono Dryer #3 Scrubber	PM10	<100	--	No
Mono Elevator #3 Baghouse	PM10	<100	--	No
Screening Plant Baghouse	PM10	<100	--	No
BFB No. 1 - Transfer #1 Baghouse	PM10	<100	--	No
BFB No. 1 - Transfer #2 Baghouse	PM10	<100	--	No
BFB No. 1 - Transfer #3 Baghouse	PM10	<100	--	No
BFB No. 1 - Bio-Carb Loadout Baghouse	PM10	<100	--	No
BFB No. 2 - Transfer #1 Baghouse	PM10	<100	--	No
BFB No. 2 - Transfer #2 Baghouse	PM10	<100	--	No
BFB No. 2 - Transfer #3 Baghouse	PM10	<100	--	No
A-Frame Storage Baghouse	PM10	<100	--	No
Soda Ash Railcar Loadout, East Blue Baghouse	PM10	<100	--	No

Emission Unit	Pollutant	Uncontrolled Potential Emissions (TPY)	Exempt from CAM by 40 CFR 64.2(b)(1)	CAM Plan Required
Soda Ash Railcar Loadout, East Gray Baghouse	PM10	<100	--	No
Soda Ash Railcar Loadout, West Blue Baghouse	PM10	<100	--	No
Soda Ash Railcar Loadout, West Gray Baghouse	PM10	<100	--	No
Boiler #25 - SOFA and Urea	NOx	>100	Yes, CEMS	No
Boiler #25 - SO2 Scrubber	SOx	>100	Yes, CEMS	No
Boiler #25 - ESP	PM10	>100	Yes, COMS	No
Boiler #26 - SOFA and Urea	NOx	>100	Yes, CEMS	No
Boiler #26 - SO2 Scrubber	SOx	>100	Yes, CEMS	No
Boiler #26 - ESP	PM10	>100	Yes, COMS	No
Coal Barn Baghouse	PM10	<100	--	No
Crusher House Baghouse	PM10	<100	--	No
Flyash Loadout Baghouse	PM10	<100	--	No
Trona Facility				
Pyrobor ESP	PM10	<100	--	No
Pyrobor Milling/Screening Baghouse	PM10	<100	--	No
Pyrobor Storage Silos Baghouse	PM10	<100	--	No
Pyrobor Bulk Loadout Baghouse	PM10	<100	--	No
Borax Dryers Scrubber	PM10	<100	--	No
Borax Screening Baghouse	PM10	<100	--	No
Borax Bulk Loadout Baghouse	PM10	<100	--	No
Boric Acid Dryer Scrubber	PM10	<100	--	No
Boric Acid Dryer Conveyor Room Baghouse	PM10	<100	--	No
Boric Acid Transfer/Storage Baghouse	PM10	<100	--	No
Boric Acid Loadout Baghouse	PM10	<100	--	No
P-20 Manufacturing Scrubber	PM10	<100	--	No
Boric Oxide Scrubber	PM10	<100	--	No
Consolidated Packaging Baghouse	PM10	<100	--	No
Soda Ash Storage Area Baghouse	PM10	<100	--	No
Westend Facility				
Sulfate Dryer #1 Scrubber	PM10	<100	--	No

Emission Unit	Pollutant	Uncontrolled Potential Emissions (TPY)	Exempt from CAM by 40 CFR 64.2(b)(1)	CAM Plan Required
Sulfate Dryer #2 Scrubber	PM10	<100	--	No
Sulfate Production Screening Baghouse	PM10	<100	--	No
Sulfate Shipping Screening Baghouse	PM10	<100	--	No
Sulfate Loadout Baghouse	PM10	<100	--	No
Borax Dryer Scrubber	PM10	<100	--	No
Borax Conveyors Baghouse	PM10	<100	--	No
Borax Production/Silos Baghouse	PM10	<100	--	No
Borax Bulk Loadout East Baghouse	PM10	<100	--	No
Borax Bulk Loadout West Baghouse	PM10	<100	--	No
Boiler #5	NOx	<100	Yes, CEMS	No
Turbine Generator - SCR Unit	NOx	>100	Yes, CEMS	No
Railroad				
Sand Loadout/Storage Baghouse	PM10	<100	--	No

*District major source threshold for PM10 is 100 tons per year (tpy)